

*Serial No. 10/047,992***REMARKS**

The Examiner is thanked for the May 21 interview, during which the Examiner indicated that the present amendment would overcome the present rejection unless the applied art were found to recite these features added by this amendment. This amendment (which corresponds to the third set of proposed claims in the Interview Agenda) changes “machine” to “car” and “construction” to “door trim panel.”

During the interview, coordinate transformations were discussed and the undersigned noted one example of coordinate transformation for a brake drum described by XYZ coordinates as part of the entire car. Such coordinates would be awkward for a lathe used to manufacture the brake drum—cylindrical coordinates $zr\theta$ would be better, because the brake drum surface does not change with θ (which would be the circumferential angle around the axis of the drum), so that only the z (axial distance) and r (radial distance from the axis) would be needed to specify the entire surface. The great simplification of eliminating one variable would probably produce better results. The coordinate transformation to change from XYZ coordinate to $zr\theta$ coordinates is:

$$r = \sqrt{X^2 + Y^2}$$

$$\theta = \tan^{-1} (Y/X)$$

$$z = Z$$

Because this transformation does not change the shape of the brake drum, but rather defines it differently, there is no change in the shape of the part.

As noted at the interview, the applied prior art does not disclose the idea of coordinate transformation.

For the record, the Applicants present further arguments concerning coordinate transformations below.

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The Examiner admits that no second coordinate system is disclosed by the prior art, but asserts a second coordinate system is inherently obvious because of "a reasonable expectation of similar success using the monitored/calculated/adjusted values for more than one coordinate system" (Action at page 7, line 5) and cites case law (*In re Harza*). The Examiner is invited to consider:

(1) An "expectation of success" is not a motivation for modifying a reference. That a combination or modification is possible rather than impossible is not legally sufficient in a § 103 rejection.

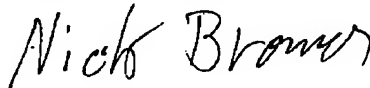
(2) The Examiner asserts that a second coordinate system can be substituted for a first coordinate system. However, no advantage is cited and therefore the asserted substitution is not obvious. The Examiner does not mention *converting* one coordinate system into another.

(3) The Examiner asserts that "mere duplication" of a part or process is inherently obvious under case law, and also that "a process ... performed with a second coordinate system" is obvious. However, the claims do not recite any process that is performed in *both* coordinate systems, and therefore there is no duplication of any process.

The application is submitted to be in condition for allowance, which is requested.

Respectfully submitted,

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